

ABSTRACT OF THE DISCLOSURE

Modular, portable data collection terminals are disclosed for use in mixed wireless and hard-wired RF communication networks, wherein various radio transmitter modules and associated antennas may be selectively added to a base terminal unit to solve networking problems associated with specific types of business environments. Modularity exists in both the hardware (splitting data collection and processing control circuitry from radio transceiver control circuitry) and software (splitting transceiver-specific, lower level communication protocol from generic, higher level communication protocol). The control circuitry, including associated microprocessors devices, interact to selectively activate communication circuits to perform necessary communication or data processing functions and enter and remain in a power-saving dormant state during other times. To support such dormant or "sleeping" states, a series of communication protocols provide for channel access to the communication network. The disclosed modular design also provides for automatic selection from a variety of available built-in and externally mounted antennas based on the particular type of radio transceiver(s) selected.

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